BRAZIL

COUNTRY PROFILE

**IMPLEMENTATION OF AGENDA 21:
REVIEW OF PROGRESS MADE SINCE THE
UNITED NATIONS CONFERENCE ON
ENVIRONMENT AND DEVELOPMENT, 1992**

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Division for Sustainable Development
The Information contained in this Country Profile is also available on the World Wide Web, as follows:
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BRAZIL

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Note from the Secretariat: An effort has been made to present all country profiles within a common format, with an equal number of pages. However, where Governments have not provided information for the tables appended to Chapters 4 and 17, those tables have been omitted entirely in order to reduce the overall length of the profile and save paper. Consequently, there may be some minor inconsistencies among the formats of the different country profiles.

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ACRONYMS

APELL	Awareness and Preparedness for Emergencies at Local Level
CFC	chlorofluorocarbon
CGIAR	Consultative Group on International Agriculture Research
CILSS	Permanent Inter-State Committee on Drought Control in the Sahel
EEZ	exclusive economic zone
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ELCI	Environmental Liaison Centre International
EMINWA	environmentally sound management of inland water
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GEMS/WATER	Global Water Quality Monitoring Programme
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GIPME	Global Investigation of Pollution in Marine Environment (UNESCO)
GIS	Geographical Information System
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
GSP	generalized system of preferences
HIV	human immunodeficiency virus
IAEA	International Atomic Energy Agency
IAP-WASAD	International Action Programme on Water and Sustainable Agricultural Development
IARC	International Agency for Research on Cancer
IBSRAM	International Board of Soil Resources and Management
ICCA	International Council of Chemical Associations
ICES	International Council for the Exploration of the Sea
ICPIC	International Cleaner Production Information Clearing House
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
IEEA	Integrated environmental and economic accounting
IFAD	International Fund for Agricultural Development
IGADD	Intergovernmental Authority for Drought and Development
IGBP	International Geosphere-Biosphere Programme (ICSU)
IGBP/START	International Geosphere-Biosphere Programme/Global Change System for Analysis, Research and Training
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
INFOTERRA	International Environment Information system (UNEP)
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	integrated pest management
IRPTC	International Register of Potentially Toxic Chemicals
ITC	International Tin Council
ITTO	International Tropical Timber Organization

ACRONYMS (Cont'd)

IUCN	International Union for Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PGRFA	plant genetic resources for agriculture
PIC	prior informed consent procedure
SADCC	South African Development Co-ordination Conference
SARD	sustainable agriculture and rural development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WCP	World Climate Programme (WMO/UNEP/ICSU/UNESCO)
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WWF	World Wide Fund for Nature (also called World Wildlife Fund)
WWW	World Weather Watch (WMO)

OVERVIEW

(You may wish to use pages v and vi to briefly present your national position five years after UNCED)

Brazil is a large country, ranking fifth in the world in terms of area and population, and eleventh in GNP. However, significant forest, water and biodiversity resources are unevenly distributed throughout its territory and considerable imbalance exists in the social and economic conditions of the different regions, as well as between urban and rural populations, especially regarding personal income and access to basic services.

For those reasons, the most noteworthy changes during the 1992-1997 period took place in the economic and social areas, along with a process of institutional reform that will have its effects on public policies, including those related to the environment, and point to more sustainable perspectives in the medium term.

A major achievement in terms of public administration, with strong support from society, was the Plano Real, launched in July 1994, perhaps the fourth or fifth attempt carried out to achieve monetary stabilization, after 30 years of persistently high rates of inflation, which exceeded 2000%, in 1993. Results for 1996 showed a declining rate close to a one-digit figure for the year. Consumer demand and economic growth has been curtailed due to the prevailing high interest rates, with a tendency toward a gradual decrease. Foreign currency reserves reached an all time high, well in excess of US$ 50 bilion in view of positive inflows of outside investment. The trade balance for 1995 and 1996 was negative as a result of liberalization and the lowering of tariff levels, which came down from an average of 51% in 1988, to 13% in 1993. Trade flows exceeded US$ 100 billion for the first time in history, with increased imports, mostly of primary products and capital goods.

The social agenda was definitely upgraded since UNCED. The precarious situation shown in UNDP´s 1995 Human Development Report, ranking Brazil globally as 63rd, demanded new action insofar as poverty, education, health, urban infrastructure and other indicators were concerned. A concerted effort to address those issues is described in Chapters 3, 36, 6, 7, among others, requiring political will, significant investment, and increased efficiency in private and public sector decision-making and operational procedures.

Institutional reform was therefore inevitable, pointing to decentralization, privatization, better coordination and a clearer division of responsibility among the three levels of government, improved political, fiscal and public management practices, and a more stable social security system, as highlights of the process.

Gradual improvement in all these sectors is an essential feature for a better performance in the environmental area, which has led the way in setting up decentralized systems and practices and in pursuing a broader participation of society in enacting policy and in decision making through appropriate mechanisms. Progress has been achieved in recent years in terms of public awareness and through federal/state and public/private partnerships, although actual enforcement of environmental legislation, use of control instruments and environmental education activities have not had so far a decisive effect in ensuring a widespread conservationist attitude. As in other fields, much remains to be accomplished, regarding the availability and access to adequate information, the use of economic instruments and the dissemination of sound practices that would stimulate a sense of responsible stewardship, in order to involve all citizens in the protection of valuable habitats and species, and to rationally utilize the country´s ample and diversified natural resources.

FACT SHEET

NAME OF COUNTRY:

1. Name of Key National Sustainable Development Coordination Mechanism(s)/Council(s).

Interministerial Commission on Sustainable Development (CIDES)

Contact point (Name, Title, Office): CIDES Secretariat : Ministry of Environment, Water Resources and the Amazon

Telephone: +55-61-317 1205 **Fax:** +55-61- **e-mail:**

Mailing address:

Secretaria Executiva
Ministério do Meio Ambiente, dos Recuros Hídricos e da Amazonia Legal
Esplanada dos Ministérios, Bloco B, 6°. andar
Brasília, DF - Brazil

2. Membership/Composition/Chairperson:

2a. List of ministries and agencies involved: All Federal Ministries, chaired by the Ministry of Planning and Budget

- Coordinators : Ministries of External Relations, Science and Technology, Environment, Water Resources and the Amazon.

- Main public institutions involved :the Brazilian Institute of Environment and Renewable Resources (IBAMA); The President´s Chamber of Natural Resources Policies

2b. Names of para-statal bodies and institutions involved, as well as participating of academic and private sector bodies:
No information.

2c. Names of non-governmental organizations involved:
No information

3. Mandate role of above mechanism/council:

- coordination, at the federal level, of activities aimed at introducing the sustainability component into development-oriented decisions.

4. If available, attach a diagram (organization chart) showing national coordination structure and linkages between ministries:

AGENDA 21 CHAPTER 2: **INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES (with special emphasis on TRADE)**

NATIONAL PRIORITY:	**High**	

STATUS REPORT: Measures taken by the Government in 1993 and 1994 to eliminate or reduce trade barriers have changed the former positive trade balance figures, observed since 1981, and which had exceeded the level of US$ 19 billion in 1988, into trade deficits which topped the US$5 bilion mark in 1996. Imports have risen appreciably, mostly of durable and capital goods.

The Real Plan, launched in July 1994, cut down the annual inflation rate, which had reached an all time high of 2,708 % in 1993, to about 10% in 1996. GNP is estimated as more than $ 800 billion at Purchasing Power Parity rates, having grown at a moderate but positive pace in the five-year period.

Total financial assistance from bilateral and multilateral sources represents less than 0.1% of GNP annually. There are over 3.5 million industrial and commercial establishments. The small and very small or micro companies are 98% in number, representing 60% of jobs, and 43% of sales. The informal sector, however, may contribute with as much as 40% of GNP.

External debt figures rose since 1992, but totals represent less than one fifth of GNP and three times the level of foreign reserves.

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministries of External Relations, of Finance and of Trade, Industry and Tourism are responsible for most of the decisions related to the topics under this Chapter.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** The South American Common Market Agreement (Mercosul/Mercosur) entered by Argentina, Brazil, Paraguay and Uruguay became operational in 1995, and has since been joined by Chile and Bolivia. A Common Import Tariff, applicable to over 9000 items, varies from zero to 20%; exceptions not exceeding 400 items per country are allowed until the year 2001. A Mercosul product must have at least 60% of its inputs produced locally.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 3: COMBATING POVERTY

NATIONAL PRIORITY: **Very High**

STATUS REPORT:

• Focus of national strategy

One of the most relevant factors for the analysis of sustainability in Brazil is the question of poverty. The poverty line may be defined as the total household income necessary : first to acquire basic foodstuffs compatible with recommended minimum nutrient requirements, and secondly, to have access to basic services, whereas the indigence line only takes into account the first parameter. There is considerable diversity within Brazil as to household income levels and expenditures, purchasing power in general and, as referred to, the minimum wage, as well as costs of goods and services. There is also a shortage of consistent and regular data on the subject.

In any case, consideration of national statistics for policy making purposes,with regard to poverty, such as figures of 30% poor and 12% indigents in the overall population for the year 1990, should account for the significant rural-urban and regional imbalances. The proportion of rural poor represented 53 % of the total rural population whereas in urban areas the poor were 18% of total, in 1990. On the other hand, the Northeast, with 30 % of the country's population, concentrated 55% of all the poor in Brazil.

Poverty levels seem to have declined since the inception of the Real Plan in July 1994. A comparative study of the six largest metropolitan areas, which account for one third of the overall urban population but have a higher than average percentage of the urban poor, indicated a reduction from 14.8 million at that time to 10.7 million poor in December 1995, or a return to absolute figures for 1990 and consequently, smaller percentages. The average income and access to services within the poor group in the Southeast, as shown in social indicators, remained higher than in the Northeastern metropolises.

• Highlight activities aimed at the poor and linkages to the environment

No information.

Cross-Sectoral Issues

1. Decision-Making Structure: A major nationwide program, "Comunidade Solidária" (Solidary Community), was launched in 1995 by the Federal Government to coordinate the work of public agencies and mobilize society in combating hunger and poverty. An Advisory Board and an Executive Secretariat, at the Presidential level, are responsible for establishing sectoral and geographic priorities, promoting decentralized projects undertaken by all three levels of government and attracting broad participation by society in their implementation. Optimization of government initiatives, support to public-private partnerships and a focus on major groups at risk, such as children, youth and the unemployed are main targets of the program, which has food security, basic education, jobs and income, infant mortality, family farming, urban improvement and as priorities.

2. Capacity-Building/Technology Issues: No information.

3. Major Groups: No information.

4. Finance: No information.

5. Regional/International Cooperation:
NB: Developed countries, where domestic poverty alleviation is not a major concern may wish to briefly describe their position regarding global poverty alleviation.

STATISTICAL DATA/INDICATORS

	1980	1991	1992	Latest 199_	
Unemployment (%)	3.4	3.7		5.1 (94)	
Population living in absolute poverty		1.8		12 (96)	
Public spending on social sector %				23	
Other data					

AGENDA 21 CHAPTER 4: CHANGING CONSUMPTION PATTERNS

NATIONAL PRIORITY: **Medium**

STATUS REPORT:

- **National policy objectives/focus** The main focus of policies and discussions related to consumption levels has been on urban issues and consumer´s rights and education, involving waste recycling and selective collection, automobile pollution management and transportation patterns. The rational use of natural resources has also brought about governmental initiatives such as the electric power economy program, the Green Protocol and a review of the ethanol program.

- **National targets**

  Producers and households are the most clearly targeted groups by governmental policies.

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministry of Environment has coordinated the discussion of this subject, which has been of interest most to both public and private consumer protection organizations.

2. **Capacity-Building/Technology Issues:** Priorities for Brazil include consumer education and communication techniques, as well energy, soil and water conservation, and sustainable forest management issues.

3. **Major Groups:** Several NGOs have been involved in various aspects of this broad subject. CEMPRE - a Rio de Janeiro-based industry-supported initiative has been active in the field of recycling and reuse of wastes, as a clearing house for waste products and in providing educational material and orientation to industry, local government and poor rag-pickers in urban areas.

4. **Finance:** Not significant.

5. **Regional/International Cooperation:** A Brazil-Norway Workshop on Sustainable Production and Consumption Patterns took place in Brasilia in November 1996, attended by specialists from both countries, other Latin American nations, IGOs and NGOs, the CSD Secretariat and other organizations. A joint statement was issued by both Ministers, addressed to the UN Secretary General, and a cooperative program drafted to allow for exchanges of information and experiences between the two countries.

STATISTICAL DATA/INDICATORS

	1980	1990/91	1992	Latest 199_
GDP per capita (current US$)		3178		
Real GDP growth (%)	2.5[1]	5.0		
Annual energy consumption per capita (Kg. of oil equivalent per capita)		549		
Motor vehicles in use per 1000 inhabitants	48.1	90.4		
Other data [1] = 1980/91				

Government policies affecting consumption and production.

1. Goals and Agents (Stakeholders)

Indicate with a (X) those agents which your Governments policies are meant most to influence.

Agents / Goals	Producers	Local authorities	Central Government	Households	Civil society
Material efficiency	X			X	
Energy efficiency:					
Transport	X	X		X	X
Housing	X				X
Other					
Waste:					
Reduce	X	X		X	X
Reuse	X	X			
Recycle	X	X		X	X

Comments:

2. Means & Measures and Agents (Stakeholders)

Indicate with an (R) those agents who assume primary responsibility for any of the policy measures indicated; indicate with an (I) the agents for which the impact is expected to be especially significant.

Means & Measures / Agents	Producers	Local authorities	Central Government	House-holds	Civil Society
Improving understanding and analysis					
Information and education (e.g., radio/TV/press)		R	R	I	I
Research	R		R		
Evaluating environmental claims		R	R	R	I
Form partnerships	R	I	R		I
Applying tools for modifying behaviour					
Community based strategies		R	R	I	I
Social incentives/disincentives (e.g., ecolabelling)	I	R	R	I	I
Regulatory instruments	I	R	R		I
Economic incentives/disincentives	I	R	R	I	I
Voluntary agreements of producer responsibility for aspects of product life cycle	I	R	R		I
Provision of enabling facilities and infrastructure (e.g., transportation alternatives, recycling)		R	R		I
Procurement policy		R	R		I
Monitoring, evaluating and reviewing performance	I				
Action campaign		R	R	I	I
Other (specify)					

Comments:

AGENDA 21 CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

NATIONAL PRIORITY:	Medium	
STATUS REPORT: The annual population growth rate, which was high until the sixties, has shown a marked decline since then. A rapid drop in the fertility rate took place in every region, most specifically in urban areas and in the high income and educational levels. As such, fertility rates have come down from an average of 5.8% in the sixties to 3.2% in the eighties, and the annual growth rate from 2.9% to 2.1% respectively. The 1991 census figures have been updated by annual household sample surveys. Projections to the year 2000 point to about 165 million in total population, and levels off at about 250 million around the year 2050. - Government views population growth and fertility level figures, nationwide, as satisfactory, but they could be somewhat lower in the less developed regions and urban areas.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministries most directly involved in demographic issues are Planning and Budget, Health, Education, Labor and Social Security. Those, as well as the Ministries of Justice and the Environment coordinate their efforts in the fields of population, environment and development.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

	1980	1991	Latest 1995	
Population (Thousands) mid-year estimates	119,002	146,825	155,822	
Annual rate of increase (1990-1993)	2.2	1.6	1.4	
Surface area (Km^2)			8,511,965 km^2	
Population density (people/Km^2)	14.0	17.2	18.3	
Other data				

AGENDA 21 CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

NATIONAL PRIORITY: **High**

STATUS REPORT: Health care remains one of the major issues, especially for low income groups in urban settlements as well as in the rural areas. The Unified Health System (SUS), integrating all levels of government, faced a serious financial crisis in 1996 and a new tax of 0.2% on financial transactions was introduced in order to settle payments in arrears to public and private hospitals and clinics.

Public health figures show the precariousness of basic sanitation services, and the persistence of endemic diseases. The annual mortality rate of the population stands at about 0.6%, or approximately 1 million people. The main causes of death have been due to circulatory diseases, external factors (accidents, homicides and other), and neoplasms, in that order, but vary according to the region, and to educational and income levels. Water borne diseases are most common in the North and parasitic diseases in the Northeast, whereas most of the deaths from external causes, including traffic accidents and homicides, occur in the Southeast.

Malaria persists in the Amazon region as a public health challenge, and cases of tuberculosis and AIDS have increased since 1992. On the other hand, the incidence of hansenosis has been halved since 1990, and no new cases are expected by the year 2000. Eradication is the target for meningitis and neonatal tetanus by 1998, and same for Aedes egypti (yellow fever and backbone fever) and Triatoma infestans(Chagas disease). Polio has been eliminated since 1989, and figures for Diphtheria and whooping cough were down to one third in 1994 of what they were in 1991. Other health issues include : alcoholics represent 15% of adult men and 9% of women; neurotic disturbances affect from 9 to 18% of the population, and less than 10% of the population benefits from regular dental care.

The Unified Health System provided for 12.6 million internments in circa 2 thousand public and private hospitals in 1995, and 1.2 billion consultations in out-patient clinics. There are 507m hospital beds, or about 300 beds per inhabitants, one third of which in public establishments. The average number of persons per doctor or registered nurse, in 1990 were respectively 847 and 3448.

As to the situation of major groups :

- 66% of women at reproductive age adopted some form of contraceptive measures, and 42% of whom were sterilized. The number of abortions is estimated at 1.5 million per year, whereas 95% of births were attended by trained health personnel and 43% of infants were breast fed at 6 months.
- 7% of all children were underweight under age 5, and malnutrition may affect up to 30% of that age group. Infant mortality levels were 45 per 1000 live births in 1994 . A joint effort between the National Health Foundation and the "Comunidade Solidária" Program has focussed on 913 municipalities of highest infant mortality risk for health, nutrition, housing, sanitation and other projects, aiming at reducing the national rate to 23 per 1000 live births by the year 2000.
- 63% of deaths in the 15 to 19 age range were by traffic accidents and homicides. (1991-1993). 57% of traffic accidents in São Paulo involved 15 to 19 year-olds. (1993)
- registered accidents at work in 1995 were about 500 thousand, but actual figures may be three times that many. Fatal occurrences reached approximately 4000 in that year.

Cross-Sectoral Issues

1. **Decision-Making Structure:** Ministry of Health, Ministry of Social Security and Welfare Unified Health System involving Federal, State and Municipal levels (60% of total) and community participation.

2. **Capacity-Building/Technology Issues:** 800 research projects at Evandro Chagas Institute and Osvaldo Cruz Foundation (FIOCRUZ).

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 1994
Life expectancy at birth	62	65	66
Male	59	62	63
Female	65	69	70
Infant mortality (per 1000 live births)	88	51	51
Maternal mortality rate (per 100000 live births)		200	150
Access to safe drinking water (% of population)			
Urban	78	87	
Rural	61	67	
Access to sanitation services (% of population)	47	53	
Urban	58	64	
Rural	7	10	
Other data			

AGENDA 21 CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

NATIONAL PRIORITY: **High**

STATUS REPORT: Revised legislation on a National Urban Policy was submitted in 1995 to Congress, whereby city planning, housing, sanitation, transportation, land access and other urban questions would be addressed in a coordinated fashion by the three levels of government. It provides for the establishment of a participatory National Urban Policy Council and a systematic and decentralized approach to the basic issues concerning human settlements, with emphasis on decisions at the local level. Main targets concern the quality of life in urban areas, especially in metropolitan regions, and a better distribution of the population throughout the country.

About 10,000 urban settlements were located in 5,131 municipalities distributed amongst 26 States in 1991. 25.5% of the municipalities had less than 10,000 inhabitants, and 3.6% over 100,000. The nine metropolitan regions accounted for nearly 30% of the total population in the country.

There were approximately 39.8 million households in 1995, 32.1 million of which were urban and 7.7 million rural. Estimates as to the number of inadequate dwellings, either improvised or overcrowded, varied from 6.0 to 8.0 million, and do not include those lacking in one or more regular basic services (water supply, sewerage and waste collection), mentioned in Chapters 18 and 21, which may run at another 7.4 to 10.6 million. 14 % of the total urban population lived in sub-standard dwellings ("favelas"), 75% of which resided in the nine metropolitan regions, mostly in Rio de Janeiro and São Paulo.

In addition to those that require improvement, 3.4 to 6.0 million new homes, would have to be built in urban areas, to cope with this deficit, largely in the Southeastern region. In addition, the annual demand increment for urban housing presently stands at about 1.3 million. About 514 thousand units were financed by credit institutions from 1990 to 1994, and most of new construction is self-financed. The shortage of adequate rural housing, not considering those with insufficient basic services, has remained stationary at about 1.6 to 2.0 million, predominantly in the Northeast.

Several ongoing public-sponsored programs, ranging from mortgage and credit to rental and low-cost public programs, may provide 2 million new housing units from 1996 to 1999. However, average monthly family income, for approximately 70% of the targeted population, is under 2 minimum wages (about US$ 210). Provisions from the federal budget, savings accounts and the compulsory Employee´s Guaranteed Savings Fund (FGTS) are estimated at US$ 26 billion. Additional resources would normally include those from state and municipal governments, multilateral financial institutions, pension funds, and private investment.

Top priorities include: populations at risk and low-income families, job-creation and capacity building, improved efficiency in basic services, access to land and protection against eviction, incentives for the occupation of the existing 3 million vacant housing units, and for enhanced technology aimed at low-cost housing, and disincentives for idle property.

Cross-Sectoral Issues

1. **Decision-Making Structure:** A Bill providing for the establishment of a National Council on Urban Policy (CNPU), having as members representatives from federal, state and municipal governments, as well as from civil society on a parity basis, was submitted to Congress in 1995. CNPU shall have four Permanent Chambers as subsidiary bodies, to address respectively issues on Urban Management, Housing, Sanitation and Urban Environment and Urban Transportation. The Secretariat for Urban Policy of the Ministry of Planning and Budget is responsible for housing and sanitation issues at the federal level, with the assistance of other Ministries, such as Health, Transport, and Environment, Water Resources and the Amazon.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** General expansion and improvement in urban areas would include 2 million housing units and water and sanitation services to over 8 million, involving almost US$ 45 billion.

5. **Regional/International Cooperation:** IBRD, IDB and KFW may provide about USD$700 million in loans until the year 1999.

STATISTICAL DATA/INDICATORS

	1980	1991	1995	
Urban population in % of total population	67.6	74.6	78.3	
Annual rate of growth of urban population (%)	4.7	3.0	2.7	
Largest city population (in % of total population)	10.6	10.5	10.5	
Greater Sao Paulo (millions)	12.6	15.4	16.4	

AGENDA 21 CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

(See pages vii and viii at the beginning of the profile)

NATIONAL PRIORITY:	Medium	

STATUS REPORT: The Interministerial Council on Sustainable Development, established in 1994, has not been formally installed as yet. Nonetheless, several intersectoral coordinating mechanisms, at all governmental levels, have provided a certain measure of integration, especially with regard to natural resources management.

States have been more active than the federal government in enacting new environmental legislation, such as environmental audits. However, approximately 20% of federal guidelines were updated and reviewed since UNCED.

With the exception of tradeable permits, there are examples of practically all other forms of economic instruments being adopted, such as subsidized credits and incentives, taxes on solid wastes, pollution, natural resource use, eco-labelling and container deposit-return schemes.

Although there are studies under way, there is not as yet official action on integrating environmental and national accounting. Cost studies undertaken by Applied Economics Research Institute (IPEA) have covered the depletion or degradation of mineral, water and forest resources, as well as the impact on health of water and air pollution.

Cross-Sectoral Issues

1. **Decision-Making Structure (please also refer to the fact sheet):** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

AGENDA 21 CHAPTER 9: PROTECTION OF THE ATMOSPHERE

NATIONAL PRIORITY:	High	

STATUS REPORT:
The Montreal Protocol was signed in 1990.
The London Amendment was signed in 1991.
The United Nations Framework Convention on Climate Change was ratified in 1994.

Additional comments relevant to this chapter

A relevant aspect of terrestrial resource management of interest to protecting the atmosphere is to control deforestation, and to implement the National System to Prevent and Combat Forest Fires and Burning. The Ministries of Environment and of Science and Technology and State environmental agencies have continued to cooperate on this matter, in spite of limited resources available.

Marine resources are dealt with in Chapter 17. A significant research project , "Brazilian Ecosystems and Macro-Vectors for Development" on land use at the national level was finalized in 1995. Other initiatives are described in Chapters 10 and 14.

Energy conservation courses are taught at schools, and over 1 million students and 20 thousand teachers are to be trained by 1997. A comprehensive program on electric power conservation has been operational for several years, with encouraging results. The target is to postpone the installation of an additional 24 thousand MW by the year 2015, for a savings of approximately US$34 billion in new investment.

Cross-Sectoral Issues

1. Decision-Making Structure: At the federal level, the Ministries of the Environment, Water Resources and the Amazon, Science and Technology, and Industry, Trade and Tourism, are responsible for protection of the atmosphere, as members of the Interministerial Council on Sustainable Development. National legislation is comprehensive, relatively advanced, and complemented by State and Municipal regulations. Recent instruments, as well as an ongoing review and update of the licensing system for polluting activities established in 1981, include :
- Law no. 8723, of 1993, enacting the Control of Air Pollution by Automotive Vehicle Program, determining emmission limits for pollutants (CO2, NOx, hydrocarbons, sulphur, particulates),
- Resolution no. 13 of the National Environmental Council, of 1995, establishing compulsory registration of all producers, importers and exporters, dealers and users of ozone depleting substances, and a schedule for phasing out these substances.

2. Capacity-Building/Technology Issues: An Inter-American Weather Forecasting and Climate Studies Center was established in São Paulo in 1995, aiming at improving the existing national early detection system and capacity to perform observations and assessments. Monitoring concentrations of greenhouse gases has so far had precedence over the identification of threshold levels. Capacity for assessment, observation, research, information and training in the area of transboundary air pollution is rated good. Air quality monitoring grids have been set up in 8 of the metropolitan areas, comprising 30% of the country´s population, and in several other cities, but their effectiveness has not been judged adequate.

3. Major Groups: NGOs and the private sector have participated in activities related to the prevention of stratospheric ozone depletion and transboundary air pollution.

4. Finance: Brazil´s contribution to the Vienna Convention Trust Fund and the Montreal Protocol was about US$300,000 in 1995, whereas the Multilateral Fund of the Montreal Protocol has financially assisted projects of over US$13 million.

5. Regional/International Cooperation: Brazil is active in the various Commissions of the MERCOSUL- South American Common Market, and in regional agreements regarding transportation and environment. The Jaguarão agreement, signed in 1990 with Uruguay, for instance, provides for exchanges and initiatives on monitoring, training and information on the possibility of transboundary impacts caused by coal-fired power generation in Southern Brazil.

STATISTICAL DATA/INDICATORS

Emissions and their main sources	1980	1990	Latest 1995	
CO_2 emissions (eq. million tons) - deforestation	1400	969	850	
SO_x " - industry	1.5	2.5	3.0	
NO_x " - vehicles	5.0	6.0	6.5	
CH_4 " - organic matter	25	26	28	
Consumption of ozone depleting substances (Tons)	.018	.016	.020	
Expenditure on air pollution abatement in US$ equivalents (million)				
Other				

AGENDA 21 CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

NATIONAL PRIORITY:	**Medium**	
STATUS REPORT: The most relevant initiative in the field of planning and management of land resources is the Ecological and Economic Zoning Project (ZEE), established in 1990 as an instrument for integrating basic geographical information and related public policies, for classifying territorial areas according to their vulnerability and potential, and for stimulating negotiation, conflict resolution and partnership amongst the various public and private actors in the process of development. ZEE´s three main products are thematic charts, at the 1: 250 000 scale, on natural vulnerability, on social potential and on inputs for land management. Areas may be classified into productive, critical (conservation or rehabilitation) or special (preserved, restricted use or strategic). Flexibility in applying ZEE directives and broad participation of society in the zoning process are essential elements for the success of ZEE, which would also require greater efforts to enforce federal natural resource regulations and to promote inter-agency coordination, as well as to consolidate appropriate legislation and standards at the State level, incorporating as a rule Municipal Land Use Plans. Priority in developing the ZEE Project was attributed to the Amazon region where all 9 States have established their ZEE Commissions, and an environmental diagnosis was carried out and completed by the Brazilian Institute of Geography and Statistics (IBGE) in 1995. Sub-regional work is under way for Western Amazonia and the Madeira river valley. Elsewhere, 10 of the remaining 17 States and the Federal District have set up their ZEE Commissions, and an environmental diagnosis for the Northeast completed in 1996.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** The President's Secretariat for Strategic Planning (SAE) is responsible for carrying out the Ecological and Economic Zoning of the National Territory, (ZEE), and chairs a Coordinating Commission of 12 federal Ministries. The 26 States and Federal District intend to establish their own ZEE Commissions.

2. **Capacity-Building/Technology Issues:** 105 specialists at the State level, in the Amazon region, were trained by the Project on methodologies for the evaluation of natural vulnerability to soil erosion.

3. **Major Groups:** At this stage, major groups involved are State and local authorities, as well as the academic and scientific community.

4. **Finance:** Resources allocated to the ZEE Project so far amount to about US$ 90 million, including 21.8 million from the G-7 Pilot Program.

5. **Regional/International Cooperation:** The Pilot Program for the Conservation of Tropical Forests in Brazil, established by the G-7 countries, the European Union and the Netherlands with managerial assistance from the World Bank, as well as the Frontier Development Projects sponsored by the Organization of American States, involving Colombia, Venezuela, Peru and Brazil and the Special Commission on Environment of the Amazon Cooperation Treaty, chaired by Brazil, are examples of such cooperation.

AGENDA 21 CHAPTER 11: COMBATING DEFORESTATION

NATIONAL PRIORITY: **High**

STATUS REPORT: Forests are defined, in Brazil as any biomass with multiple environmental linkages, natural or planted, with variable economic, social and genetic uses for present and future generations.

Native tropical forests around the world covered approximately 19 million km^2 in the late eighties, 26% of which were in Brazil. Out of this total, 396 thousand km^2, or 8%, were protected areas, not including Indian lands which accounted for 11% of the total for the country. Planted forests, mostly of eucalyptus and pinus, represented about 102 thousand km^2.

In spite of government efforts, the deforestation of native forests has continued since UNCED, frequently as a function of the demand for wood products in association with land-clearing for agricultural purposes. Consequently, recent measures have included a moratorium on the exploitation and sale of threatened species, such as mahogany, and have limited the size of farming areas in rural properties in the Amazon region. The most endangered forest is the Atlantic rainforest which has dwindled to less than 5% of its initial coverage under continuous pressure from human activity along the coastline.

Other government initiatives include: a National Program of Native Plant Seeds, a scheme to diversify forest products in rubber extraction reserves, studies related to the rational exploitation of 14 million hectares of forested public land, and equipping three specialized laboratories for testing and research.

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministry of Environment, Water Resources and the Amazon is responsible for the forestry sector. It supervises the activities of the Brazilian Institute of Environment and Renewable Resources (IBAMA), chairs the National Council on the Environment (CONAMA) and takes part in the President´s Chamber for Natural Resources Policies, which coordinates the various aspects related to forests and other issues. Since 1988, Brazil´s 27 federative units (States and the Federal District) and over 5000 municipalities share the responsibility of enacting and enforcing complementary legislation within their territories.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** NGOs and the private sector are represented in CONAMA and may participate in Task Forces of the President´s Chamber. Major international and Brazilian NGOs are engaged in forest protection activities, at various levels and aspects, especially in the Atlantic and Amazon regions.

4. **Finance:** No information.

5. **Regional/International Cooperation:** The most relevant example of international cooperation is the Pilot Program for the Protection of Tropical Forests in Brazil, with the support of the G-7 countries and the Netherlands, the European Union, and IBRD, supplemented by bilateral arrangements with Germany, United Kingdom, Japan and others. The Amazon Cooperation Treaty brings together, since the sixties, the 8 countries of the Amazon region on a broad range of subjects.

STATISTICAL DATA/INDICATORS

	1985	1990	Latest 1995
Forest Area (Km^2)	5056	4930	4865
Protected forest area*		396	396
Roundwood production (solid volume of roundwood without bark in mill m^3)**	236	259	301 (1993)
Deforestation rate (Km^2/annum)		11,130	14,896 (1994)
Reforestation rate (Km^2/annum)			
National Income from forestry sector (% GNP)	5	5	4.5
Income from exports	.83	2.55	3.87 (1993)
Imports of Forest Products	.34	.29	.20 (1993)
Other * = includes conservation units only, and not indian lands ** = includes wood for charcoal and firewood uses			

AGENDA 21 CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

NATIONAL PRIORITY:	Medium	

STATUS REPORT:

The International Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification Particularly in Africa was signed in 1994 and ratified in 1996

Additional comments relevant to this chapter Within an area of about 900,485 km^2 in Northeastern Brazil, about 10,000 km^2 have been identified as desert or of no value, and 223,000 km^2 as in danger of desertification, as of 1995. Another 486,043 km^2 were in cultivation, and overgrazing, fuel wood collection as well as improper farming and land use were considered as predominant factors in the process of desertification. The existing network of 622 meteorological and hydrological monitoring stations was assessed as adequate, while the 3 soil and land degradation-data collection stations were judged insufficient.

Since UNCED, a working group was formed to propose a National Plan to Combat Desertification to the Federal Government, which should contemplate, among other basic aspects, alternative employment opportunities for the poor and environmental refugee programs. The Aridas Project, sponsored by the Ministry of Planning and the Esquel/Brazil Foundation, drafted a sustainable development strategy for the region,

Meanwhile, the following issues have been addressed, along with field work in the region : dissemination of early warning information to decision makers and land users, drought preparedness and relief schemes, intensive soil conservation and afforestation/reforestation schemes and food deficiency strategies.

Cross-Sectoral Issues

1. Decision-Making Structure: The Ministry of Environment, Water Resources and the Amazon is the main federal institution responsible for the sustainable development of the semi-arid region in Northeastern Brazil. Two agencies under the Ministry, namely the Brazilian Institute of Environment and Renewable Resources (IBAMA) and the National Department for Public Works against the Droughts (DNOCS) as well the Superintendency for the Development of the Northeast and Governments of the 9 States included in the semi-arid region are also involved in the process. Provisions to combat desertification and drought are contemplated in the basic environmental, water resources and agricultural legislation.

2. Capacity-Building/Technology Issues: There are noticeable shortages in terms of trained personnel for "early warning", extension and research tasks, as well as limitations regarding their management, planning and implementation skills. Present staff at central and other levels numbers 63 persons, of which only one third is considered adequate.

3. Major Groups: Full participants at the grass-roots level include NGO´s, women and youth, whereas their contribution at state and national levels are considered respectively as "ad-hoc" and "advisory".

4. Finance: Financial resources required to proceed with the National Plan to Combat Desertification and the Aridas Project are estimated at US$30 million until the year 2000.

5. Regional/International Cooperation: Some post-Rio funding has been provided by multilateral organizations. FAO, UNEP, the University of Chile and the Esquel/Brazil Foundation have been active in developing Indicators for Desertification in Brazil and in providing a final list.

STATISTICAL DATA/INDICATORS

	1980	1991	Latest 1995
Land affected by desertification (1000 Km^2)		233	233 (1995)
Land susceptible to desertification (100 km^2)	900	900	900
Semi-arid Zone (NE Brazil)			
Total population (million)	19	17	
Population in industry (thousand)	553	620	
Industry output (billion US$)	17	18	
Total economic output (billion US$)	40	63	58 (1994)

AGENDA 21 CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

NATIONAL PRIORITY:	
STATUS REPORT: No information.	

Cross-Sectoral Issues

1. **Decision-Making Structure:** No information.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

NATIONAL PRIORITY: **High**

STATUS REPORT: Agriculture in Brazil is undergoing a transition from a closed and protected sector to an open market and competitive activity. A thorough review and update of agricultural policies was proposed in 1996 by the Ministry of Agriculture and Food Supplies, and is presently under way through the establishment of a National Forum on Agriculture. Government departments at federal and state levels, farmers´ and rural workers´ organizations, trading companies, exchange markets and financial institutions, research centers and rural extension agencies are participants in this effort, which comprises about 20 task forces.

In spite of increased productivity, inadequate zoning and farming practices and the widespread use of fertilizers and agro-chemicals, mechanization and deforestation has nonetheless continued to be responsible for considerable environmental impact on living, land and water resources. Soil erosion has reached in many areas levels well above the permissible 10 t/ha-year. Agro-ecological zoning studies for the Southern and Southeastern regions, coordinated by the Ministry of Agriculture, however, have been effective in increasing the security and productivity of rice, beans, corn, soybean, cotton and wheat crops. Financing and insurance charges and interest rates have gone down, and the impact on soil and living resources has diminished in view of stricter selection of soils for agriculture.

Land tenure remains a critical issue, for various reasons. One is the abnormal concentration of large farming units in relatively few hands. Limits on the expansion of the agricultural frontier, both urban and rural unemployment caused by layoffs in industry and increased mechanization in agriculture have exacerbated land reform expectations in the last two years. Action by the so-called Landless Farmers´ Movement has escalated in 1995/96 and prompted the federal government to set up a Ministry for Agrarian Reform with the responsibility for settling 160 thousand families settled in 1997/98.

There is a growing trend on the part of certain NGOs as well as government and scientific representatives to consider family farming and organic agriculture as essential elements for a complete restructuring of agricultural and cattle-raising activities in order to make them more sustainable.

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministry of Agriculture and Food Supplies is the main federal body responsible for those matters. Its subsidiary agency, the Brazilian Agricultural Research Corporation heads the main research, rural extension and information networks, involving state, academic and other scientific and professional organizations. Instrumental in rural credit policies and operations are the Central Bank and the Bank of Brazil.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** Most relevant foreign assistance projects have been promoted by the World Bank, and on a bilateral basis by Germany and Japan. The Inter-American Development Bank and the Inter-American Agrarian Sciences Institute are also active as regional organizations.

STATISTICAL DATA/INDICATORS

	1985	1991	Latest 199_	
Agricultural land (Km^2)				
Agricultural land as % of total land area		28.7		
Agricultural land (hectares) per capita		16.9		
	1989/90	**1991**	**Latest 1994**	
Consumption of fertilizers per (nutrients in 1000 t)		3584	5080	
Population employed in agriculture (millions)	41	37.8		
- as % of total population	44	24		

AGENDA 21 CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

NATIONAL PRIORITY: **Very High**

STATUS REPORT:

The Convention on Biological Diversity was signed in June 1992 and ratified February 1994.

The Convention on International Trade in Endangered Species of Wild Fauna and Flora was ratified before July 1992.

Additional comments relevant to this chapter

Biodiversity protection is a very high priority amongst Agenda 21 items in Brazil. Most relevant threats to biodiversity remain habitat destruction, over-harvesting and monoculture, and pollution, while the undue introduction of exotic plants and animals is not relevant.

There are approximately 500 public protected areas, not including Indian lands, totalling about 4.5% of the country's territory. Seventy percent of those are managed by States and Municipalities.

Genetic plant resources for agriculture are preserved in 70 public gene banks. There are 75 zoos, 25 botanical gardens and 40 sites for the collection of microorganisms.

Cross-Sectoral Issues

1. Decision-Making Structure: The Ministry of Environment, Water Resources and the Amazon is primarily responsible for Biodiversity and Genetic Resources, at the federal level, and is fully involved in national planning and decision-making with regard to natural resource use and development. Relevant legislation enacted since 1992 includes :

- Interministerial Commission on Sustainable Development, Coordination for Biological Diversity (June 1994); National Biodiversity Program (Dec.1994); Biosafety Law (Jan. 1995); National Council for the Amazon Region (Aug.1993); National Integrated Policy for the Amazon Region (Dec. 1994); National Policy on Ecotourism (Sept.1994); President´s Chamber for Natural Resources Policy (Mar.1996).

2. Capacity-Building/Technology Issues: There were about 50,000 scientists engaged in biodiversity research, as of the early 90s, as well as 306 courses at Master degree level, and 158 at Doctoral level, which have enhanced capacity building in assessment, systematic observation, evaluation and biodiversity protection enforcement.

3. Major Groups: Local participation in the conservation of biological and genetic resources is limited, but increasing, whereas NGOs, businessmen and scientists are active in supervisory bodies. Over 100 private protected areas have been established.

4. Finance: Main resources have been channeled through federal and state budgets of environmental agencies.

5. Regional/International Cooperation: Multilateral initiatives include agreements with IBRD, IDB, UNDP and GEF, whereas bilateral arrangements have involved Germany, USA, Japan and the UK. Noteworthy are the IBRD-financed National Environmental Program, the Pilot Program to Protect Tropical Forests, supported by the G-7, Netherlands and IBRD, and the GEF/IBRD-backed Conservation and Sustainable Use of Biodiversity Project.

STATISTICAL DATA/INDICATORS

	1980	1991	Latest 199_
Protected area as % of total land area	2.5	2.5	4.5
		1990	Latest 199_
Number of threatened species[1] Fauna Flora	 207 14	 303	
Other data [1] = Surveys of threatened species have been carried out by a few states at their level. There has been no nation-wide assessment since 1991.			

AGENDA 21 CHAPTER 16: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

NATIONAL PRIORITY:	Medium	
STATUS REPORT: The status report for Chapter 15 is applicable in most aspects to Biotechnology. The Ministry of Environment, Water Resources and the Amazon cooperates closely with the Ministry of Science and Technology in the proposal and implementation of policies and programs.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** The National Technical Council on Biosafety, a subsidiary body of the National Council on Science and Technology, under the Ministry of Science and Technology, was established in April 1996 and is responsible for regulating all activities and projects related to the engineering, cultivation, management, use, transportation, storage, trade, consumption, licensing and disposal of genetically modified organisms.

2. **Capacity-Building/Technology Issues:** Main programs include the National Support Program for the Development of Science and Technology (PADCT), and the Research and Development Program on Agricultural Biotechnology, involving several hundred researchers and projects. The Brazilian Bioinformatics Resource Center and the Brazilian Molecular Biology and Technology Network, with a Biosafety database and discussion list, are regular information exchange mechanisms.

3. **Major Groups:** Business corporations, Scientists and NGOs participate in issues related to biotechnology.

4. **Finance:** Federal budget allocations by the Ministries of Science and Technology, Education, Health, Agriculture and the Environment, to universities, to the Brazilian Agricultural Research Corporation (EMBRAPA) and the Osvaldo Cruz Foundation (FIOCRUZ), and to other institutions, for training and research on biotechnology, have exceeded US $40 million annually.

5. **Regional/International Cooperation:** Bilateral initiatives on biotechnology in agriculture include agreements with Argentina, France (African Oil Palm), Germany, Belgium (Bean Methane), as well as the UK (Fermentation Yeast) and several U.S. Universities (Cornell, Texas A&M, and other). Multilateral support has been channeled through IBRD and the IBD, as mentioned above.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

NATIONAL PRIORITY:	**High**	
STATUS REPORT: An ongoing Coastal Management Program, coordinated by the Ministry of Environment, involving other federal agencies, coastal states and municipalities, and addressing practically every aspect of land zoning and use, pollution control, natural resource assessment and inventory, capacity building, identification of critical spots and contingency plans, in a decentralized fashion, has allowed for the development of an integrated coastal strategy. Land-based sources of pollution, partly due to the deficient sanitation systems or the location of at least 8 important industrial districts along the coast are a cause of concern and require constant monitoring. The critical condition of fisheries along the coastline has given way to the establishment of an Interministerial Working Group at the level of the Presidential Office. The process of drafting a federal bill on Fisheries has taken into consideration the essential items of the FAO Code of Conduct of Responsible Fishing. A number of projects aimed at protecting endangered species such as sea tortoises, manatees, whales and dolphins and aquatic birdlife have been implemented and expanded, with a more recent addition of a regional project on the preservation of marine biodiversity and coastal wetlands, co-sponsored by GEF and UNESCO. The survey of living resources in the Exclusive Economic Resources advances slowly due to some extent to the lack of adequate vessels and financial assistance. **The UN Convention on the Law of the Sea was ratified in 1987.** **- Other conventions and agreements : include the implementation of the London and Basel Conventions, the Framework Convention on Climate Change, MARPOL and IMO resolutions.** See also the attached tables on the next pages.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** Protection of the oceans is a federal responsibility, primarily attributed to the Ministries of Environment, Water Resources and the Amazon, Navy. Science and Technology, and Mines and Energy . These and other Ministries are part of the Interministerial Commission for Marine Resources, chaired by the Minister of the Navy, which supervises the research programs related to the Continental Platform (LEPLAC), Exclusive Economic Zone (REVIZEE), Coastal Management (GERCO) and the Antarctic (PRO-ANTAR). The scientific and technological activities are supervised by the Ministry of Science and Technology through the Marine Sciences Program.

2. **Capacity-Building/Technology Issues:** Data bases are available on oceanography, deep sea oil drilling, and ocean sciences and technologies. The Coastal Management Program has trained over 500 technicians at state level. The UN-supported Train-Sea-Coast Center was installed at the University of Rio Grande. Incentives for research on marine culture and fish conservation will be provided as bursaries from the National Research Council.

3. **Major Groups:** The private sector and the scientific community are fully integrated in decision-making at the national and local levels. Small-scale artisanal fishermen and indigenous people act through their organizations on an advisory basis, while state and local authorities participate in the coastal management programs.

4. **Finance:** Budget allocations to Ocean programs by the aforementioned Ministries exceed US$ 50 million per year. Multilateral support, not including pollution control and sanitation projects along the coast, has come mostly from IBRD for the Coastal Management sub-component of the National Environmental Program (US$ 2.85 million in 1992/94) and the GEF/UNESCO Regional Project to preserve Biodiversity and Mangroves in Tropical America (US$ 1.3 million in 1995/96).

5. **Regional/International Cooperation:** The United Nations system cooperates with Brazil on ocean matters through UNESCO´s International Oceanographic Commission and its many research programs and projects, the Train Sea Coast program on capacity-building, and the Food and Agricultural Organization on fisheries. There is bilateral cooperation with the United States, Germany, France and Argentina and other countries on studies and projects related to the South Atlantic and the Exclusive Economic Zone.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Catches of marine species (metric tons)	623.4	428.6	492.7 (1994)	
Population in coastal areas		67.3	69.5 (1993)	
Households (in %)				
Population connected to municipal waste water pipeline		4.8		
Population with potable water piping		79.5		
Population with inside waste water piping		18.5		
Population with garbage collection service		72.0		
Population with dump garbage nearby		13.4		

Chapter 17 (Oceans) Continued:

Check the boxes in the column below left:
For level of importance use:
*** = very important
** = important
* = not important
N = not relevant

Check the boxes in the column below right:
For level of implementation use:
*** = fully covered
** = well covered - gaps being addressed
* = poorly covered
O = not covered
N = not relevant

TABLE I. THE FOLLOWING ACTIVITIES HAVE BEEN CONSIDERED BY THE APPROPRIATE COORDINATING MECHANISM FOR INTEGRATED MANAGEMENT AND SUSTAINABLE DEVELOPMENT OF COASTAL AND MARINE AREAS AND THEIR RESOURCES.

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
***	a. Preparation and implementation of land and water use and siting policies.	*
***	b. Implementation of integrated coastal and marine management and sustainable development plans and programmes at appropriate levels.	**
***	c. Preparation of coastal profiles identifying critical areas including eroded zones, physical processes, development patterns, user conflicts and specific priorities for management.	**
***	d. Prior environmental impact assessment, systematic observation and follow-up of major projects, including systematic incorporation of results in decision-making.	*
***	e. Contingency plans for human induced and natural disasters.	*
***	f. Improvement of coastal human settlements, especially in housing, drinking water and treatment and disposal of sewage, solid wastes and industrial effluents.	*
***	g. Periodic assessment of the impacts of external factors and phenomena to ensure that the objectives of integrated management and sustainable development of coastal areas and marine environment are met.	*
***	h. Conservation and restoration of altered critical habitats.	*
***	I. Integration of sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries affecting the coastal areas.	*
***	J. Infrastructure adaptation and alternative employment.	*
***	K. Human resource development and training.	*
***	L. Public education, awareness and information programmes.	*
***	M. Promoting environmentally sound technology and sustainable practices.	*
***	N. Development and simultaneous implementation of environmental quality criteria.	*

TABLE II. TECHNOLOGY (MARINE ENVIRONMENT)

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
***	A. Apply preventive, precautionary and anticipatory approaches so as to avoid degradation of the marine environment, as well as to reduce the risk of long-term or irreversible adverse effects upon it.	*
***	B. Ensure prior assessment of activities that may have significant adverse impacts upon the marine environment.	*
***	C. Integrate protection of the marine environment into relevant general environmental, social and economic development policies.	**
***	D. Develop economic incentives, where appropriate, to apply clean technologies and other means consistent with the internalization of environmental costs, such as the polluter pays principle, so as to avoid degradation of the marine environment.	*
***	E. Improve the living standards of coastal populations, particularly in developing countries, so as to contribute to reducing the degradation of the coastal and marine environment.	*
**	F. Effective monitoring and surveillance within the exclusive economic zone (EEZ) of fish harvesting and transportation of toxic and other hazardous materials.	*

TABLE III. SEWAGE RELATED ISSUES

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
	A. Sewage related problems are considered when formulating or reviewing coastal development plans, including human development plans.	
	B. Sewage treatment facilities are built in accordance with national policies.	
	C. Coastal outfalls are located so as to maintain acceptable level of environmental quality and to avoid exposing shell fisheries, water intakes and bathing areas to pathogens.	
	D. The Government promotes primary treatment of municipal sewage discharged to rivers, estuaries and the sea, or other solutions appropriate to specific sites.	
	E. The Government supports the establishment and improvement of local, national, subregional and regional, as necessary, regulatory and monitoring programmes to control effluent discharge. Minimum sewage effluent guidelines and water quality criteria are in use.	

TABLE IV. OTHER SOURCES OF MARINE POLLUTION, THE GOVERNMENT HAS:

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
	A. Established or improved upon, as necessary, regulatory and monitoring programmes to control emissions, including recycling technologies.	
	B. Promoted risk and environmental impact assessments to help ensure an acceptable level of environmental quality.	
	C. Promoted assessment and cooperation at the regional level, where appropriate, with respect to the input of point source pollutants from the marine environment.	
	D. Taken steps to eliminate emissions or discharges of organohalogen compounds from the marine environment.	
	E. Taken steps to eliminate/reduce emissions or discharges or other synthetic organic compounds from the marine environment.	
	F. Promoted controls over anthropogenic inputs of nitrogen and phosphorous that enter coastal waters where such problems as eutrophication threaten the marine environment or its resources.	
	G. Taken steps to develop and implement environmentally sound land-use techniques and practices to reduce run-off to water courses and estuaries which would cause pollution or degradation of the marine environment.	
	H. Promoted the use of environmentally less harmful pesticides and fertilizers and alternative methods for pest control, and considered the prohibition of those found to be environmentally unsound.	
	I. Adopted new initiatives at national, subregional and regional levels for controlling the input of non-point source pollutants which require broad changes in sewage and waste management, agricultural practices, mining, construction and transportation.	
	J. Taken steps to control and prevent coastal erosion and siltation due to anthropogenic factors related to, inter alia, land-use and construction techniques and practices.	

TABLE V. ADDRESSING CRITICAL UNCERTAINTIES FOR THE MANAGEMENT OF THE MARINE ENVIRONMENT AND CLIMATE CHANGE. IN ORDER TO IMPLEMENT THIS PROGRAMME AREA THE GOVERNMENT IS CARRYING OUT THE FOLLOWING ACTIVITIES:

LEVEL OF IMPORTANCE	ACTIVITY AS DESCRIBED IN AGENDA 21	LEVEL OF IMPLEMENTATION
	A. Coordinating national and regional observation programmes for coastal and near-shore phenomena related to climate change and for research parameters essential for marine and coastal management in all regions.	
	B. Providing improved forecasts of marine conditions for the safety of inhabitants of coastal areas and for the efficiency of marine operations.	
	C. Adopting special measures to cope with and adapt to potential climate change and sea-level rise.	
	D. Participating in coastal vulnerability assessment, modelling and response strategies particularly for priority areas, such as small islands and low-lying and critical coastal areas.	
	E. Identifying ongoing and planned programmes of systematic observation of the marine environment, with a view to integrating activities and establishing priorities to address critical uncertainties for oceans and all seas.	
	F. Research to determine the marine biological effects of increased levels of ultraviolet rays due to the depletion of the stratospheric ozone layer.	
	G. Carrying out analysis, assessments and systematic observation of the role of oceans as a carbon sink.	

TABLE VI. RATING OF ACTIVITIES IN THE AIR AND MARITIME TRANSPORT SECTORS IN THE SMALL ISLANDS DEVELOPING STATES (SIDS)

AIR TRANSPORT	RATING	MARITIME TRANSPORT	RATING
1. Frequency (external flights)		1. Frequency (external shipping)	
2. Frequency (in-country flights)		2. Frequency (in-country shipping)	
3. Cooperation at regional level in air transport and civil aviation		3. Cooperation at regional level in shipping	
4. Cooperation at international level		4. Cooperation at international level	
5. Economic viability of national air line		5. Economic viability of national shipping line(s)	
6. Economic viability of regional air line		6. Economic viability of regional shipping line (s)	
7. national level training in skills for air transport sector		7. National level training in skills for maritime transport sector	
8. Access to training in skills for air transport sector within the region		8. Regional level training in skills for maritime transport sector	
9. Access to international training for air transport sector		9. Access to international training for maritime transport sector	
10. Supportive of ICAO			

AGENDA 21 CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

NATIONAL PRIORITY:	**Medium**	

STATUS REPORT: Water supply and sewerage services are generally rendered by government controlled state companies. Seventy-five percent of urban homes were connected to municipal systems in 1980 and 87% in 1991. In rural areas, 4% were served by water supply systems and 63% had wells or springs in 1980, while in 1991 the figures were 9% and 58%. Losses and unaccountable uses were responsible for over 40% of the water provided by the state companies. Therefore, most of the present efforts are directed towards the upgrading and streamlining of their operations, as well as the possibility of their being privatized.

The required annual investment to link up all urban dwellings by the year 2020 is estimated at US$ 2 to 2.5 billion, having in mind that there are about 3.5 million dwellings with family incomes below US$200. Meanwhile, a series of programs attempt to cover the needs of both large and small urban centers, with greater priority attributed to those where infant mortality is highest.

The availability of fresh water, estimated at over 5 thousand billion m^3 per year is largely concentrated in the Amazon basin with 70% of that total. Signs of scarcity already occur in the Northeast and Southeast, where demand is highest in proportion to supply. Irrigation and other rural uses were estimated at 60% of demand in 1991, with industrial and residential consumption sharing the remaining 40%.

Cross-Sectoral Issues

1. **Decision-Making Structure:** The Ministries of Mines and Energy, and of the Environment, at the federal level are responsible for the concessional use and quality of fresh water, and more specifically, for interstate and international water courses. Most of the surface water and underground reserves are state assets, and in accordance with constitutional provisions, both levels of government are able to legislate and decide on this matter. A National Watershed Management System was recently established, allowing for participation of society in regulating bodies at basin level.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** No information.

STATISTICAL DATA/INDICATORS

	1980	1990/91	Latest 1995	
Fresh water availability (total domestic/external in million m^3)	5610	5610	5610	
Annual withdrawal of freshwater as % of available water	.5	.6	.7	
Availability per capita (thousand m^3/yr)	47	38	36	

AGENDA 21 CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS

NATIONAL PRIORITY:	**High**	
STATUS REPORT: The subject is covered to a reasonable extent in chapter 20.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** Regulatory capacity at the federal level lies with the Ministry of Environment, either directly or through the National Council on Environment (CONAMA) or the Brazilian Institute on Environment and Renewable resources (IBAMA), as well as with the Ministries of Health, Agriculture, Labor, and Transport with regard to licensing and control of the manufacture, labelling, storage, transport, handling and use of toxic and other chemicals, particularly, those harmful to human health, such as pesticides, wood preservatives, asbestos, mercury and cyanide. The Ministry of Justice in addition controls chemical inputs for the production of cocaine and other drugs.

2. **Capacity-Building/Technology Issues:** No information.

3. **Major Groups:** No information.

4. **Finance:** No information.

5. **Regional/International Cooperation:** Harmonized legislation on chemical substances for the South American Common Market (MERCOSUL) will come into force on January 1, 1998. Brazil participates actively in the Inter-governmental Forum on Chemical Safety (IFCS) and in the discussions related to issues such as Prior Informed Consent (PIC), the control of Persistent Organic Pollutants (POP´s), risk reduction of toxic substances, risk evaluation systems and harmonized labelling.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTER 20: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN HAZARDOUS WASTES

NATIONAL PRIORITY: **Medium**

STATUS REPORT:

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal : No information.

Additional comments relevant to this chapter The management of hazardous wastes has not as yet been regulated by a national policy that would encompass its many aspects as well as ensure coordinated action on the part of the three levels of Government. Nonetheless, the Ministry of Environment, Water Resources and the Amazon, through the National Council of Environment (CONAMA) has enacted, since 1988, a number of decisions on classification, licensing, handling, processing, storage, exports and imports of hazardous wastes, in accordance with Brazilian Standards and mechanisms contemplated in the Basel Convention. Otherwise, issues on hazardous wastes such as transportation and recycling have been addressed by Presidential Decrees, interministerial bodies and directives from other Ministries and States.

Recent action on the subject has included a Task Force organized by CONAMA to propose a draft National Policy on Wastes, efforts by the environmental agencies of the States of Rio de Janeiro and São Paulo, among others, to prepare their Master Plans and Waste Management Plans, in accordance with CONAMA Resolution no. 05/93, and the two projects on international cooperation described below (see Regional/ International Cooperation) on waste management and technology data banks and on information networks and system.

Cross-Sectoral Issues

1. Decision-Making Structure: All three levels of Government share the responsibility for enforcing general and specific legislation and regulations concerning the management and disposal of hazardous wastes. There is no specific policy concerning the issue, and whatever licensing and control exists in practice emanates from federal and state environmental bodies and agencies.

2. Capacity-Building/Technology Issues: No information.

3. Major Groups: Participation of Major Groups is envisaged in the proposed draft National Policy on Wastes.

4. Finance: No information.

5. Regional/International Cooperation: Two relevant international/regional cooperation projects have been initiated since 1992: - one on Waste Management and Technologies, co-sponsored by the United Nations Development Program (UNDP), the federal Ministries of Planning and the Environment as well as the Secretariats for Environment and Science and Technology, and their respective agencies; - the other on the establishment of an Environmentally Sound Waste Management Information Network, co-sponsored by the German Technical Cooperation Agency GTZ, and the Pan American Health Organization (PAHO), representing the World Health Organization (WHO). The Brazilian Network (REBRAMAR) will be part of a larger Pan American Network project (REPAMAR), to which six Latin American countries have committed themselves to date.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Generation of hazardous waste (1000 t)*			1976.6	
Import of hazardous wastes (1000 t)			5.1 (94/95 ave.)	
Export of hazardous wastes (1000 t)			1.4 (95)	
Area of land contaminated by hazardous waste (km^2)				
Expenditure on hazardous waste treatment (US$)				
Other data * Industrial waste class II for Greater Sao Paulo.				

AGENDA 21 CHAPTER 21: ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTES AND SEWAGE-RELATED ISSUES

NATIONAL PRIORITY: **Medium**

STATUS REPORT: The Secretariat for Urban Policy of the Ministry of Planning and Budget is responsible for federal directives on waste collection, treatment and disposal issues, with the assistance of other Ministries, such as Health, Transport, and Environment, Water Resources and the Amazon. Coordinated efforts among the three levels of government on solid waste disposal began in 1966 with 10 solid waste management pilot projects and incentives for 5 waste-minimization projects, to be implemented by 1999, under the experimental PROGEST program. Priority is attributed to municipalities that require and are willing to implement integrated solid waste management systems, where inadequate disposal either induces high-risk public health problems, pollutes freshwater sources, or depends on uncontrolled fills, and those where the production of hazardous wastes is significant.

Regular waste collection services in 1991 attended to 80.0% of urban and 5.6% of rural population, for a total of 241 thousand tons a day. These figures rose to 86.7% and 10.4% respectively in 1995. 76.7% of the total waste collected in 1991 was dumped in open pits, whereas 21.9% was disposed of in controlled or sanitary fills and 2.1% processed in composting plants, recycled or incinerated. Disposal in water courses is not relevant and restricted to the Northern region, and the highest incidence of uncontrolled dumping occurs in the Northeast. Industrial and hazardous wastes collected by the municipal systems is symbolic, and their disposal depends largely on the producer´s initiative.

In 1991, 49% of urban and 2% of rural households were served by sewerage systems and respectively another 19% and 8% had septic tanks. No more than 10% of the total sewage collected, however, went through treatment plants, mostly at primary level, and predominantly in the Southeast. If septic tanks are added to these totals, the average national percentage rises to 29%, with higher marks for the South and the North.

Special efforts have been directed in the recent past to waste collection and sewerage services for the urban poor in densely population areas. Some experiments have been carried out of exchanging individually collected garbage, in low income districts were services cannot be offered, for bus tickets or food supplies. Programs to organize groups of trash pickers into cooperatives and as micro entrepreneurs have also been moderately successful in a number of large cities.

Cross-Sectoral Issues

1. Decision-Making Structure: At this stage, decisions on solid wastes lie mostly at the municipal level, pending the enactment of a national policy to be proposed by the Secretariat of Urban Policy.

2. Capacity-Building/Technology Issues: Innovative experiments on community sewage disposal units and lower cost treatment plants such as aerated ponds are being implemented with some success.

3. Major Groups: No information.

4. Finance: No information.

5. Regional/International Cooperation: No information.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 199-	
Generation of industrial and municipal waste (t)				
Waste disposed(Kg/capita)				
Expenditure on waste collection and treatment (US$)				
Waste recycling rates (%)				
Municipal waste disposal (Kg/capita)				
Waste reduction rates per unit of GDP (t/year)				
Other data				

AGENDA 21 CHAPTER 22: SAFE AND ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTES

NATIONAL PRIORITY:	Medium	
STATUS REPORT: Radioactive wastes and by-products generated in the past 40 years in Brazil are stored in nuclear installations and other sites either owned or controlled by the National Nuclear Energy Commission (CNEN) located in 4 different States. They have originated from the operation of the Nuclear Power Plant in Angra dos Reis, the radiological accident in Goiania in the early 90s, from the processing of maonazitic sands and from the use of radioisotopes in medicine, industry and research, and represent a volume of approximately 5,440 m^3. Relevant legislation and regulations issued since 1992 include the National Council of Environment (CONAMA) Resolution 24/1994, on international trade of radioactive wastes, Decree 96.044 concerning transportation of dangerous products, and preliminary criteria for the disposal of medium and low-level radioactive wastes.		

Cross-Sectoral Issues

1. **Decision-Making Structure:** All activities related to the management of radioactive wastes are licensed and controlled by a specialized department of the National Nuclear Energy Commission (CNEN), an agency supervised by the President´s Secretariat for Strategic Affairs. International trade in radioactive wastes must be authorized by CNEN after prior consultation with the Brazilian Institute of Environment and Renewable Resources (IBAMA). The latter will notify the competent authorities in the country of destination of all exports of radioactive material originating in Brazil.

2. **Capacity-Building/Technology Issues:** A program was approved in November 1996 by the International Atomic Energy Agency (IAEA), involving CNEN and all its research institutes for capacity building in the areas of waste treatment, public acceptance and repository safety evaluation. Training programs in the areas of transportation of radioactive materials (with ARCAL) and implementation of a National Radiological Event Monitoring System (SINAER) for Latin America have taken place. During the year 1996, 160 sanitary inspectors, as well as airline, airport and internal revenue personnel posted at port, airport and border facilities were trained in control procedures regarding radioactive materials.

3. **Major Groups:** Most contacts are carried out with the scientific community, especially within the framework of the National Radiological Event Monitoring System.

4. **Finance:** No information.

5. **Regional/International Cooperation:** Regional cooperation with ARCAL and internationally with IAEA.

STATISTICAL DATA/INDICATORS

AGENDA 21 CHAPTERS 23-32: MAJOR GROUPS

The role of major groups are also covered under the various chapters of Agenda 21. The following is a summary of main objectives outlined in Agenda 21. Please check the appropriate boxes and describe briefly any important steps or obstacles.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 24: GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT. The Convention on the Elimination of All Forms of Discrimination Against Women was signed on 31 March 1981 and ratified on 1 February 1984, with reservations. These were cancelled by Congress on 22 June 1994.

24.a Increasing the proportion of women decision makers. In 1992 and 1996, there were 2 (4%) and 1 (2%) women represented in government; and 32 (5%) and 40 (7%) women represented in parliament respectively. 178 (2%) women were represented at the local level in 1992.

24.b assessing, reviewing, revising and implementing curricula and other educational material with a view to promoting dissemination of gender-relevant knowledge.
Curricula and educational material : An agreement was signed in 1996 between the Ministry of Justice, the National Council on Women 's Rights (CNDM) and the Ministry of Education to review curricula, school textbooks and teachers training.

24.c and 24.d formulating and implementing policies, guidelines, strategies and plans for achievement of equality in all aspects of society including issuing a strategy by year 2000 to eliminate obstacles to full participation of women in sustainable development. Policies/strategies etc : Policies/strategies : A Task Force on gender is contemplated as part of the Technical Committee for the Brazilian Agenda 21.

24.e establishing mechanisms by 1995 to assess implementation and impact of development and environment policies and programmes on women : Mechanisms : A National Plan of Action to Implement the decisions of the Beijing Conference will be launched in 1997. The existing institutional structure includes a National Council of Women 's Rights, 11 State Councils and 38 Municipal Councils, as well as 115 NGOs, and over 3000 independent associations.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

156 bills related to women 's rights were introduced in Congress, dealing principally with working conditions, violence, health and civil rights. Political parties must include at least 20% of women candidates at proportional elections.

Women represented, in 1995, 50.9% of the total population of 152.4 million. Of the total economically active population of 74.1 million, in 1996, 40.4% were women, 92.7% of which were actually employed. This figure rose 6.9% from 1993 to 1995, twice as high as the equivalent rate for men. The average wage for women, however, did not exceed 54,5% of that for men, in 1996.

Women accounted for about 20% of all heads of households. Population living below the poverty line was estimated at about 42 million in 1994, and may have been reduced to approximately 30 million at the end of 1996, due to the implementation of the "Plano Real" and to 10% annual inflation rate at the end of 1996. 23% of those families were headed by women.

22.8% of all women over the age of 5 were illiterate in 1994, but the percentage of those who had completed 11 years of schooling rose from 14,7% in 1992 to 16,4% in 1996. Maternal perinatal mortality rates varied from 3.0 per 1000 live births in the North to 1.1 per 1000 in the South. Fertility rates went down from 2.60 in 1993 to 2.52 in 1996, while the estimated annual population rate of growth was 1.4% in 1995, down from 1.6% in 1991. Life expectancy at birth for women in 1993 was 69.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 25: CHILDREN AND YOUTH IN SUSTAINABLE DEVELOPMENT.

25.a establishing processes that promote dialogue between the youth and government at all levels and mechanisms that permit youth access to information and opportunity to present their views on implementing A21 : Relevant youth fora (of this kind) have not been established.

Describe their role in the national process: Not applicable.

25.b reducing youth unemployment : Youth unemployment, ages 15-24 equalled 2,470,498 (27%) and 1,626,388 (17%) in 1992 and 1995 respectively. This data does not include those not previously employed.

25.c ensuring that by year 2000 more than 50% of youth -- gender balanced -- have access to appropriate secondary education or vocational training : There is no target date for the goal set in Agenda 21.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Infant mortality rates decreased down from 43% in 1992 to 40% in 1994, most significantly from 87% to 63% in the Northeast. 3% of children under 5 years of age were undernourished in 1995. Illiteracy in children between 10 and 14 went down from 14.4 in 1990 to 10% in 1995.

Possible participants at relevant fora are the National Students' Union (UNE), and the Brazilian Secondary School Students' Union (UBES), which include respectively all university and high school student organizations at state and local levels.

In 1995, 28% of the population aged 20 and over had secondary education. The target for 1999 of the National Professional Education Plan is to train 20% of the Economically Active Population estimated at 15 million, including youth and adolescents.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 26: RECOGNIZING AND STRENGTHENING THE ROLE OF INDIGENOUS PEOPLE AND THEIR COMMUNITIES.

26.a A process to empower indigenous people and their communities - through policies and legal instruments - is in place.

26.b Indigenous groups participate on an ad hoc basis in national policies.

26.c Indigenous people are partially involved in resource management strategies and programmes at the national and local level, depending on their location and relative degree of awareness. Examples of Indian representation are the Council of the Program for the Protection of Indian Lands in the Amazon and the Committee on Demonstration Projects A, both part of the Pilot Program for the Protection of Tropical Forests. There are 109 registered Indian associations, with broad geographic, ethnic and gender representation.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page):

The Indian population in Brazil was estimated, in 1995, at 325,652 individuals, 54% of whom reside in the Amazon Region. They are settled in 554 Indian reserves and areas, located in federal land, which amounted to 946.452 km2, or 11.1% of the country´s territorial area. Of the 279 reserves yet to be demarcated, 136 are undergoing or have completed their regular process of identification. Indians have the exclusive rights to hold and exploit the natural resources in those reserves. There are in all 215 different ethnic groups, who speak 170 different languages, in every possible cultural situation and stage of development, and 70 thousand indian children attend 785 bilingual schools.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 27: STRENGTHENING THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS: PARTNERS FOR SUSTAINABLE DEVELOPMENT.

27.a developing mechanisms that allow NGOs to play their partnership role responsibly and effectively : No information.

27.b reviewing formal procedures and mechanisms to involve NGOs in decision making and implementation : No information.

27.c As of 1997, NGOs will be allowed to participate in the conception, establishment and evaluation of official mechanisms to review Agenda 21 implementation. NGO inputs are considered important by the government.

27.d establishing a mutually productive dialogue by 1995 at the national level between NGOs and governments : No information.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): The Federal Constitution establishes the citizen´s right to form an association, without formal authorization and free of governmental interference, as well as the right to information, of personal, collective or general interest, provided by government bodies and agencies in accordance with legislation regarding time frames and responsibilities. Specific legislation with respect to rights, incentives and duties of NGOs may be required to promote their participation in the decision-making process. NGOs participate in various human rights and environmental councils, the discussions involving the structures and procedures of National Council on Sustainable Development, and the organization of Rio+5.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 28: LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21.

28.a encouraging local authorities to implement and monitor programmes that aim to ensure participation of women and youth in local decision making : There are at least 10 local Agenda 21´s being drafted , all of which involve representation
of women and youth. They involve 18% of population. The Government, through the Federal Ministry of Environment, and some State Governments, supports Local Agenda 21 initiatives.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): A considerable number of municipalities across Brazil have joined the National Municipal Association for the Environment (ANAMA), and have a seat in the National Council of the Environment since 1996. The Ministry of Environment has entered into an agreement with ANAMA to help implement local Agenda 21´s in a few dozen municipalities, and is currently developing a data base of good examples of sustainable local management with the Free University of the Environment in Curitiba. The Solidary Community Program has also retained the Brazilian Municipal Institute (IBAMA) to undertake a study on innovative solutions to the problem of providing urban services to the poor.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 29: STRENGTHENING THE ROLE OF WORKERS AND THEIR TRADE UNIONS.

29.a full participation of workers in implementation and evaluation of A21: Workers : (as organized labor) do not yet participate in National Agenda 21 discussions/implementation.

29.b By year 2000, (a) promoting ratification of ILO conventions; (b) establishing bipartite and tripartite mechanism on safety, health and sustainable development; (c) increasing number of environmental collective agreements; (d) reducing occupational accidents and injuries; (e) increasing workers' education and training efforts : ILO Conventions - 155 and others, (on health and safety), have been ratified.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): Bipartite and tripartite mechanisms for health and safety are in place, but collective agreements on environment are not significant. The problematic occupational health situation, with 424 thousand accidents amongst urban workers, of which approximately 4 thousand were fatal, prompted the Government to launch a National Campaign to Combat Accidents at Work, to be subsequently upgraded to a National Program. Pending Congress approval there are ILO Conventions on child labor (138) and Indian population (169).

30: STRENGTHENING THE ROLE OF BUSINESS AND INDUSTRY.

30.a increasing the efficiency of resource use, including reuse, recycling, and reduction of waste per unit of economic output : Government policies encourage the above objective. Government policies do not require recycling.

30.b encouraging the concept of stewardship in management and use of natural resources by entrepreneurs :

List any actions taken in this area:
- The "Green Protocol" subscribed by federal financial institutions
- Regular bodies established at National Confederations and State
- Trade and Industry Federations, as well as sectoral organizations
- Educational campaign aimed at small and medium-sized enterprises
sponsored by the Brazilian SME Support Service and others
- Training and research promoted by the National Industry Services
- The Chemical Industry´s " Responsible Care" Program
- The tripartite GANA organization (Government-Industry-NGO) participates in the discussion, formulation and implementation of ISO 14000 standards

30.c increasing number of enterprises that subscribe to and implement sustainable development policies : Several large corporations have adopted sustainable development policies. A few small and medium sized enterprises have adopted such policies.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): 48 companies and professional associations have subscribed to the International Chamber of Commerce´s Business Charter for Sustainable Development and 3 large corporations are members of the World Business Council for Sustainable Development. A business sponsored Brazilian Foundation for Sustainable Development is a leading player in the Rio+5 event scheduled for March 1997.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 31: SCIENTIFIC AND TECHNOLOGICAL COMMUNITY.

31.a improving exchange of knowledge and concerns between s&t community and the general public.
Scientific community has already established ways in which to address the general public and deal with sustainable development : In two ways, 1. individually, through the professional contribution of hundreds of specialists to the Science and Technology Development agencies, and, 2. collectively by means of regular activities carried out by private technical and scientific societies, such as regular meetings and publications, especially in the fields of physics, mathematics, engineering, biology and chemistry.

31.b developing, improving and promoting international acceptance of codes of practice and guidelines related to science and technology and its role in reconciling environment and development : No information.

Brief comments on this chapter not already described in chapter 35 (maximum 100 words) (please, do not exceed this page): Refer to chapters 27 and 35. In addition to the above comments, post-graduate associations contribute effectively to the drafting of educational, science and technology policies, and a relevant role is played in those areas by the Brazilian Academy of Sciences and the Brazilian Society for the Progress of Science (SBPC), with a membership of over 5,000 scientists, technicians, and university students.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 32: STRENGTHENING THE ROLE OF FARMERS.

32.a promoting and encouraging sustainable farming practices and technologies : The Brazilian Agricultural Research Corporation (EMBRAPA) and the State Rural Extension organizations (EMATER's) have the responsibility for assisting farmers in their work.

32.b developing a policy framework that provides incentives and motivation among farmers for sustainable and efficient farming practices : The participatory National Forum on Agriculture (see chapter 14) is in the process of formulating and proposing, in 1997, a new agricultural policy based on sustainable development practices. The "Green Protocol"(Chapters 30 and 33) provides credit and specific incentives to that effect.

32.c enhancing participation of organizations of farmers in design and implementation of sustainable development policies : The National Forum on Agriculture provides geographical and sectoral representation for that purpose.

Brief comments on this chapter (maximum 100 words) (please, do not exceed this page): No information.

AGENDA 21 CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Financial resources and mechanisms are also covered under each sectoral chapter of Agenda 21 where relevant. This summary highlights broader national financial policies, domestic and external (including ODA)

NATIONAL PRIORITY:	
STATUS REPORT: No information. **CHANGES IN NATIONAL BUDGET TO ADDRESS SUSTAINABLE DEVELOPMENT:** No information. **NEW ECONOMIC INSTRUMENTS:** No information. **ELIMINATION OF ENVIRONMENTALLY UNFRIENDLY SUBSIDIES:** No information.	

ODA policy issues
Brazil is a recipient of ODA.

STATISTICAL DATA/INDICATORS						
	1992	1993	1994	1995	1996	
ODA funding provided or received (Total US$million)						
	Average for 92-93		Average for 94-96			
Net flow of external capital from all sources as % of GDP						
Other data						

AGENDA 21 CHAPTER 34: TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

Transfer of environmentally sound technology, cooperation and capacity-building is also covered under each sectoral chapter of Agenda 21 where relevant. This summary highlights broader national policies and actions relating to chapter 34.

NATIONAL PRIORITY: High

STATUS REPORT ON LINKS BETWEEN NATIONAL, REGIONAL AND INTERNATIONAL INFORMATION NETWORKS/SYSTEMS: By far the fastest growing and most flexible system available at this time is Internet. During the year 1996, the number of domains in Brazil went from 1,100 to 11,700, and the number of hosts from 17,200 to 77,400. End-users with regular access to Internet are estimated in the range of a few million.

Apart from the work regularly carried out in this field by industry associations that subscribe to several programs like Responsible Care, the Business Charter for Sustainable Development and others, a relevant initiative quoted elsewhere in this report is the GEF-UNIDO sponsored Center for Clean Technologies, which will add another important element to the various activities related to this matter by the National Industrial Apprenticeship Service.

As mentioned in Chapter 30, a joint effort by public agencies and companies as well as private corporations, under the aegis of the National Standards Association, actively promotes Brazilian participation at ISO 14 000 meetings and promotes the implementation of those standards.

A broad educational campaign on sustainable development features, aimed at small and medium sized companies was launched in 1996, co-sponsored by SEBRAE (the national organization for assisting SME's), Unesco, as well as a well-known business magazine, and a major communications network.

MEANS OF IMPLEMENTATION: No information.

• Describe any work being undertaken at the national or local level regarding efforts to promote clean production processes and/or the concepts of eco-efficiency. These processes may include training, preferential financial arrangements, information dissemination and changes in legal or regulatory frameworks.
No information.

• Provide information on the adoption of environmental management systems. National reaction to environmental management system standards such as the ISO 14000 Series and others. Please note efforts made at the national level to promote their adoption and the creation of certification infrastructure in order to facilitate access to these standards to local industry.
No information.

• List and describe programs or work under way to facilitate the transfer of ESTs to small and medium sized enterprises. Please note efforts to facilitate access to financial resources and other transfer strategies.

No information.

AGENDA 21 CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

NATIONAL PRIORITY: **High**

STATUS REPORT ON NATIONAL SCIENTIFIC KNOWLEDGE, RESEARCH NEEDS AND PRIORITIES:

A greater emphasis on scientific achievement and a marked improvement in the access to information and means of data processing and communication have signaled continuous progress in this area in the past 4 years. Priorities include biological and computer sciences, automation, and chemistry. Relevant needs would point to marine and land resources, health and the social sciences.

STEPS TAKEN TO ENHANCE SCIENTIFIC UNDERSTANDING, IMPROVE LONG TERM SCIENTIFIC ASSESSMENT, BUILDING OF CAPACITY AND CAPABILITY: A significant step taken since 1992 was the establishment of the National Council on Science and Technology (CCT), chaired by the President of the Republic and having distinguished scientists and leading businessmen as members, thereby bringing together research and market concerns. The new Council heads an institutional structure formed by research, educational as well as development agencies and organizations at federal, local and private levels, which include the National Research Council (CNPq), the Studies and Project Financing Agency (FINEP), the State Research and Development Foundations, the University-level Capacity Building Commission(CAPES), over one hundred universities and several dozen public and private research establishments. From 1992 to 1996, the number of undergraduate, master's and doctorate level courses increased by 168, 91 and 77 to new figures of 1775, 1159 and 616, respectively.

STATISTICAL DATA/INDICATORS			
		Year	
Number of scientists, engineers and technicians engaged in research and experimental development	# 52,863 55,459 72,198	1985 1992 1996	
Total expenditure for research and experimental development (US$eq.)	$100 $600 $720	1985 1992 1996	
in % of GNP	.5 .6 1	1985 1992 1996	

AGENDA 21 CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

NATIONAL PRIORITY:

STATUS REPORT: According to 1990 statistics, the educational level of the overall population could thus be described : 22% were illiterates, 38% had the equivalent to grade 5, 19% completed grade school, 13% finished high school and 8% had university and post-graduate degrees.

Education for all, as set forth in the National Policy on Basic Education, is both a constitutional requirement and an international commitment subscribed by Brazil at Jomtien, Thailand, in 1990. Priorities and targets set for education to the year 2000 may include :

- reducing illiteracy from 18% in 1993 to less than 10%;
- increasing access to schooling for the 7 to 14 age group from 96% in 1994 to 100%;
- continuously raising pre-schooling figures for the 4 to 6 age group, which have reached 48% in 1994, as compared to 29% in 1985.

Other relevant features indicate that :

- the Northeastern region has the lowest mean number of years of schooling, representing less than 60% of the national average, and comprises about 37% of all illiterates in Brazil;
- the poor (families earning less than 2 minimum wages) are under-represented in pre-school and high school age groups (40% as compared to 80% for the others), and in grade school (75% as compared to 98%);
- of the 200 thousand grade schools, about 30% were urban, with 82% of the pupils; 33% of grade school students failed and repeated their year in 1992, 5% dropped out, and 63% were older than the age group for the grade.
- 14 thousand high schools and 134 vocational schools were practically all urban, and 60% of the pupils took night courses; 55% of the students were over 17 years of age, down from 60% in 1985; repetition and truancy rates are comparable to grade school;
- proportion of public to total number of schools is 90% at grade, 75% at high school and 40% at university levels.

a) Reorientation of education towards sustainable development There have been few initiatives which explicitly refer to sustainable development, as for instance the Ministry of Environment / IBAMA / University of Brasilia Center and those that exist in some universities. However, there is visible interest on subjects such as consumer choices and rights, health-oriented and anti-violence campaigns, environmental education at all levels of schooling which are consistent with the issue of sustainable development.

b) Increasing public awareness The role played by the media in terms of informal education, not only covering the news, but running articles, documentaries, debates and other programs related to environmental protection and sustainable development issues has definitely increased awareness as public opinion polls frequently demonstrate. NGOs have also contributed towards raising public awareness by influencing the drafting and implementation of public policies on such issues as women´s and children´s rights, public health and education.

c) Promoting training No information.

ROLE OF MAJOR GROUPS: No information.

FINANCING AND COST EVALUATION OF THE LABOUR ACTIVITIES: No information.

STATISTICAL DATA/INDICATORS				
	1980	1990	Latest 1993	
Adult literacy rate (%) Male	69	80	83	
Adult literacy rate (%) Female	67	76	80	
% of primary school children reaching grade 5 (1986-97)		38		
Mean number of years of schooling	3.7	5.0		
% of GNP spent on education	3.6	4.6	5.5	
Females per 100 males in secondary school			138	
Women per 100 men in the labour force			65	
Other data				

AGENDA 21 CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES

National capacity building is also covered under sectoral chapters.
Donors: You may wish to describe here how Agenda 21 has influenced your ODA policies in this area.
Developing countries: You may wish to describe any new national mechanisms for capacity building - and any changes in technical cooperation.

NATIONAL PRIORITY:	High	
STATUS REPORT ON NATIONAL ENDOGENOUS CAPACITY BUILDING: Greater efforts and more funds have been oriented towards capacity-building of the public sector, as an instrument for decentralization and improved efficiency. On the other hand, multilateral agencies and banks, namely the World Bank and the Inter-American Development Bank and the United Nations Development Program, have consistently supported local initiatives both in conventional and more dynamic professional fields. That is also the case with some bilateral arrangements with Japan, Germany, the United Kingdom, France and the United States, which have assisted government and NGO initiatives. Worth mentioning are projects involving the National Industrial Apprenticeship Service such as the Center for Cleaner Technologies.		

AGENDA 21 CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

Ch. 38: Brief summary of any particular UN System response affecting this country/state: Several UN agencies have provided Brazil with technical assistance but limited funding. The most relevant, after UNCED, has been the United Nations Development Program - UNDP, which has been an important partner in areas such as capacity building in areas such as public administration, external relations, health, education and environment. Also active in their own fields were UNESCO, FAO, WHO, UNIDO and ILO.

A significant reversal of the previous situation, in terms of capital flows has occurred in Brazil´s relationship with the World Bank. The value of financing contracts signed during this decade have exceeded US$4.7 billion, covering agriculture, water resources, irrigating, sanitation, highways and other sectors.

AGENDA 21 CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

Ch. 39: International Legal Instruments are covered under the relevant sectoral chapters. This is a listing of major agreements/conventions (not already covered) entered into and relevant to Agenda 21: The most significant international arrangements from the point of view of trading practices and regulations, with visible social and economic implications for Brazil, have taken place within the framework of Mercosul, involving Argentina, Paraguay and Uruguay, and more recently Chile and Bolivia, and also in Brazil´s relations with the world community, as a result of GATT´s Uruguay Round.

These developments have inevitably influenced the domestic situation at the regional, local and individual levels, and touched upon the issue of sustainability with regard to government institutions and the private sector.

A common bilateral environmental agenda has been agreed upon in 1995/96 between Brazil and the United States, Germany, India, China and Canada, and a memorandum of understanding signed with Argentina.

AGENDA 21 CHAPTER 40: INFORMATION FOR DECISION-MAKING

This chapter is also covered under sectoral and other chapters of this profile. The matrix below gives an overview of how national authorities rate the available information for decision making.

Rating of available data and information suitable for decision-making

Agenda 21 Chapters		Very good	Good	Some good data but many gaps	Poor	Remarks
2.	International cooperation and trade			X		
3.	Combating poverty				X	
4.	Changing consumption patterns					
5.	Demographic dynamics and sustainability		X			
6.	Human health		X			
7.	Human settlements			X		
8.	Integrating E & D in decision-making				X	
9.	Protection of the atmosphere		X			
10.	Integrated planning and management of land resources				X	
11.	Combating deforestation					
12.	Combating desertification and drought		X			
13.	Sustainable mountain development					
14.	Sustainable agriculture and rural development			X		
15.	Conservation of biological diversity			X		
16.	Biotechnology			X		
17.	Oceans, seas, coastal areas and their living resources			X		
18.	Freshwater resources			X		
19.	Toxic chemicals			X		
20.	Hazardous wastes			X		
21.	Solid wastes			X		
22.	Radioactive wastes				X	
24.	Women in sustainable development				X	
25.	Children and youth			X		
26.	Indigenous people				X	
27.	Non-governmental organizations			X		
28.	Local authorities				X	
29.	Workers and trade unions				X	
30.	Business and industry			X		
31.	Scientific and technological community		X			
32.	Farmers				X	
33.	Financial resources and mechanisms				X	
34.	Technology, cooperation and capacity-building				X	
35.	Science for sustainable development				X	
36.	Education, public awareness and training				X	
37.	International cooperation for capacity-building			X		
38.	International institutional arrangements				X	
39.	International legal instruments				X	
40.	Information for decision-making				X	

Additional Comments

STATISTICAL DATA/INDICATORS			
	1980	1991	Latest 1995
Number of telephones in use per 100 inhabitants		10,200	17,159
per 100 inhabitants		6.4	10.9
		1995	1996*
INTERNET services			
number of domains (1000)		1	11
number of hosts (1000)		17	74
* end users estimated at a few million			